REMARKS

This communication responds to the Office Action mailed on December 8, 2005. No claims are amended, claims 11-26 and 31 are canceled, and no claims are added. As a result, claims 1-10, 27-30, and 32-35 are now pending in this Application, with claims 8-9 and 28-29 being withdrawn.

§103 Rejection of the Claims

Claims 1-7, 10, 27, 30, and 32-35 were rejected under 35 USC § 103(a) as being unpatentable over Nagasaka (U.S. 6,201,286; hereinafter "Nagasaka") in view of Broyde (U.S. 4,794,353; hereinafter "Broyde"), or Nagasaka in view of Novak et al. (U.S. 6,525,622; hereinafter "Novak"), and further in view of Broyde. First, the Applicant does not admit that Nagasaka, Novak, or Broyde are prior art, and reserves the right to swear behind these references in the future. Second, since a *prima facia* case of obviousness has not been established, the Applicant respectfully traverses this rejection.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). In combining prior art references to construct a *prima facie* case, the Examiner must show some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art that would lead an individual to combine the relevant teaching of the references. *Id*. The M.P.E.P. contains explicit direction to the Examiner that agrees with the *In re Fine* court:

> In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant=s disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d (BNA) 1443

(Fed. Cir. 1992). However, while it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7 U.S.P.Q.2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 U.S.P.Q. 171, 174 (C.C.P.A. 1979)). The requirement of a suggestion or motivation to combine references in a *prima facie* case of obviousness is emphasized in the Federal Circuit opinion, *In re Sang Su Lee*, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002), which notes that the motivation must be supported by evidence in the record.

No proper *prima facie* case of obviousness has been established because (1) combining the references does not teach all of the limitations set forth in the claims, (2) there is no motivation to combine the references, and (3) combining the references provides no reasonable expectation of success. Each of these points will be explained in detail, as follows.

Combining The References Does Not Teach All Limitations: With respect to independent claims 1 and 27, and as admitted by the Office, "Nagasaka in view of Novak ... [does not teach] a summed series resistance provided by adding a value of resistance for the resistive element to an effective series resistance of the capacitor is approximately equal to an effective series resistance of a circuit board and the circuit board plane," as claimed by the Applicant. The Office goes on to assert, however, that "Broyde teaches a dissipative low-pass filter as shown in figure 4 comprising a resistor (Rc) connected to a capacitor C of a filter 16, which is approximately equal to a resistance C1 of a filter 18 ...". A close reading of Broyde reveals that such is not the case.

Broyde describes each filter 16 in FIG. 4 as having a "real part of the input impedance" of about 43 ohms, constituting "...the load impedance of the non-dissipative filter 18 ... [which] will then be able to be calculated in a conventional manner taking this load impedance into account." *See* Broyde, Col. 4, lines 39-52. Thus Broyde says nothing whatever about the value of the "resistance C1 of a filter 18" as asserted by the Office. Further, all of the components in the dissipative filters 16 and non-dissipative filter 18 comprise conventional elements, and none are selected such that "a summed series resistance provided by adding a value of resistance for

the resistive element to an effective series resistance of a capacitor including the capacitor terminal is approximately equal to an effective series resistance of a circuit board and the circuit board plane" as claimed by the Applicant. For example, to view typical component values used in the filters 16, please refer to FIG. 3 and Col. 3, lines 59-64 of Broyde.

The use of unsupported assertions in the Office Action does not satisfy the explicit requirements needed for demonstrating motivation as set forth by the *In re Sang Su Lee* court. Therefore, the Examiner appears to be using personal knowledge to make the assertions, and is respectfully requested to submit an affidavit as required by 37 C.F.R. § 1.104(d)(2).

Thus, since neither Nagasaka, Novak, nor Broyde teach "a summed series resistance provided by adding a value of resistance for the resistive element to an effective series resistance of the capacitor is approximately equal to an effective series resistance of a circuit board and the circuit board plane," as claimed by the Applicant, no combination of these references can provide this missing element. Therefore, a *prima facie* case of obviousness has not been established with respect to independent claims 1 and 27. It is respectfully noted that if an independent claim is nonobvious under 35 USC § 103, then any claim depending therefrom is also nonobvious. See M.P.E.P. § 2143.03. Therefore all of the rejected dependent claims (i.e., claims 2-7, 10, and 30-35) are also nonobvious.

No Motivation to Combine the References: Novak describes determining a mounted resistance for each one of a plurality of capacitors (Rm-req) as being equal to the number of capacitors times the target electrical impedance (Zt). *See* Novack, Col. 4, lines 59-64. The impedance Zt, in turn, is depends on the resonant frequency of the capacitors. *See* Novack, Col. 3, lines 45-49. Thus, Novack actually describes a mounted resistance that depends on the resonant frequency of the individual capacitors, and not on the series resistance of the capacitor, the effective series resistance of the circuit board, or the equivalent series resistance of connecting circuitry, such as a circuit board plane, as claimed by the Applicant.

While Broyde teaches the selection of circuit components with respect to filtration, these teachings are directed to "filtering electrical power lines" such as "an input or output filter of an electronic power apparatus, in particular an uninterruptible power supply." Broyde, Col. 4, line 67 – Col. 5, line 2. In fact, Broyde specifically disclaims "[f]itting ... a resistor in series with the capacitor" since it does not "solve the problem of load or source impedances ...". *See* Broyde,

Col. 1, lines 21-24. Nagasaka does not describe any mechanism for selecting circuit element resistance whatsoever.

It is respectfully noted that references must be considered in their entirety, including parts that teach away from the claims. See MPEP § 2141.02. Since Novack and Broyde both teach away from the mechanism employed by the Applicant, there is no motivation to combine either Novack or Broyde with Nagasaka.

No Reasonable Expectation of Success: Since neither Nagasaka nor Novak teach "a summed series resistance provided by adding a value of resistance for the resistive element to an effective series resistance of the capacitor is approximately equal to an effective series resistance of a circuit board and the circuit board plane," as claimed by the Applicant, one of skill in the art would not expect any success in combining these references. That is, employing the teachings of Novak with respect to determining a mounted capacitor resistance in the resistive element of Nagasaka would not result in the ability to match circuit board and interconnection resistance.

Further, the Office assertion that it would be obvious "to have the teaching of Broyde employed in an apparatus of Nagasaka ... in view of Novak in order to form an equivalent circuit to control a frequency applied on a circuit board or device ..." overlooks the expressed objective of Broyde, which is to "serve the purpose of fixing the load impedance seen by the non-dissipative filter 18 which can thus be used whatever the load impedance Z2." Broyde, Col. 4, lines 27-29. In other words, Broyde does not teach matching circuit board/plane series resistance values either, and no success in doing so would be expected by one of skill in the art when attempting to combine Broyde with Nagasaka and/or Novak.

In summary, since there is no evidence in the record to support disclosure by Nagasaka, Novack, or Broyde of a "summed series resistance provided by adding a value of resistance for the resistive element to an effective series resistance of the capacitor is approximately equal to an effective series resistance of a circuit board and the circuit board plane," as claimed by the Applicant; since there is no motivation to combine Novak or Broyde with Nagasaka to supply the missing element; and since no reasonable expectation of success arises even if such a combination is made, a *prima facie* case of obviousness has not been established with respect to independent claims 1 and 27, or any of the claims that depend from them. It is therefore

RESPONSE UNDER 37 CFR § 1.111
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respectfully requested that the rejection of claims 1-7, 10, 27, 30, and 32-35 under 35 U.S.C. § 103 be reconsidered and withdrawn.

CONCLUSION

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicant's attorney, Mark Muller at (210) 308-5677, or Applicant's below-named representative to facilitate the prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this ___ day of February 2006.

Chris Hammond   _Chris Hammond_
Name   Signature